

- a)
- fluid communication with said first and second chambers, respectively;
- b) electromagnet means carried by said housing and located externally of said fluid containing region;
- c) barrier means of fluid-impervious material for isolating said electromagnet means from said fluid containing region of said housing;
- d) an armature movably positioned in said fluid containing region of said housing and having a pole portion located in one of said first and second chambers for magnetic attraction by said electromagnet means and having a plunger portion provided with valve means located in the other of said first and second chambers for opening and closing one of said ports to place said ports in fluid communication through said fluid containing region of said housing in one control state of said valve and to block fluid communication between said ports through said fluid containing region of said housing in another control state of said valve;
- e) said housing being elongated having a longitudinal axis, said armature being positioned for movement along said housing longitudinal axis, and said fluid containing region of said housing and said electromagnet means being in axially spaced relation along said housing longitudinal axis;
- f) said armature pole portion occupying a major portion of the one of said chambers in which it is located and having a lateral dimension several times greater than the longitudinal dimension thereof;
- g) said armature pole portion having a fluid-containing section of material which is compatible with the fluid delivered by said system;

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- h) means for defining a magnetic circuit including said electromagnet, said armature pole portion, a portion of said barrier means and a gap between said pole portion and said electromagnet means located in said fluid containing region of said housing and external to said electromagnet means for closing said gap in response to electrical energization of said electromagnet to move said armature and change the control state of said valve; and
  - i) said armature pole portion contacting said barrier means when said gap is closed to change the control state of said valve and said barrier means including a surface portion of conical shape wherein the apex of the cone faces toward said armature pole portion so as to enhance the separation of said pole portion from said barrier means during movement of said armature.

Claim 23 in part e) on line 2 of part e) before "magnetic" insert --corrosion resistant--.

Please rewrite claim 30 in independent form as new claim 33 as follows:

a2 1038. A low power electromagnetic valve for use with implantable fluid delivery systems, said valve comprising:

- a) a housing including a fluid containing region having first and second chambers and first and second ports in fluid communication with said first and second chambers, respectively;
- b) electromagnet means carried by said housing and located externally of said fluid containing region;
- c) barrier means of fluid-impervious material for isolating said electromagnet means from said fluid containing region of said housing;
- d) an armature movably positioned in said fluid containing region of said housing and having a pole portion

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located in one of said first and second chambers for magnetic attraction by said electromagnet means and having a plunger portion provided with valve means located in the other of said first and second chambers for opening and closing one of said ports to place said ports in fluid communication through said fluid containing region of said housing in one control state of said valve and to block fluid communication between said ports through said fluid containing region of said housing in another control state of said valve;

- e) said armature pole portion comprising a solid body exclusively of magnetic material occupying a major portion of the one of said chambers in which it is located and having a lateral dimension several times greater than the longitudinal dimensions thereof, said magnetic material consisting essential of a heat treated alloy of chrome, molybdenum and iron;
- f) means for defining a magnetic circuit including said electromagnet, said armature pole portion, a portion of said barrier means and a gap between said pole portion of said electromagnet means located in said fluid containing region of said housing and external to said electromagnet means for closing said gap in response to electrical energization of said electromagnet to move said armature and change the control state of said valve; and
- g) said armature pole portion contacting said barrier means when said gap is closed to change the control state of said valve and said barrier means including a surface portion of conical shape wherein the apex of the cone faces toward said armature pole portion so as to enhance the separation of said pole portion from said barrier means during movement of said armature.